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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,165	01/16/2001	Veronique Douin	05725.0827-00000	9808
22852	7590	12/27/2007	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			WANG, SHENGJUN	
			ART UNIT	PAPER NUMBER
			1617	
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			12/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/759,165	Applicant(s) DOUIN ET AL.	
	Examiner Shengjun Wang	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,18,25,28,38,39,43-58 and 71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,18,25,28,38,39,43-58 and 71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 15, 2007 has been entered.
2. The terminal disclaimer filed on June 15, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. application 09/759,530 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 U.S.C. 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 18, 25, 28, 38, 39, and 43-58 rejected under 35 U.S.C. 103(a) as being unpatentable over Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. (US Patent 5,876,705).

Sweger teaches a hair compositions containing amino-multicarboxylate modified starch. See the claims. Example 1 illustrates a starch modified with 2-chloroethylaminodipropionic acid (CEPA) (see col. 6, line 44 through col. 7, line 10). The starch

derivatives provide thickening and emulsion stabilization and exhibit good appearance and feel to the skin (see col. 1, lines 32-37, col. 9, lines 60-63). The reference teaches that polyacrylic acid polymers such as Carbopol resins are the leading thickeners and emulsion stabilizers in the skin care and hair care markets. The reference further teaches that CEPA-modified starch gives stable viscosity over time and is superior to the Carbopol® standard (see col. 9, lines 1-6).

Sweger does not teach expressly the other ingredients in the hair composition, such as conditioning agent behenyltrimethylammonium, or anionic surfactant alkyl ether sulfate. However, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to use hair conditioning agents, and surfactants because those are well known essential ingredients normally used for hair compositions. For example, Matsumoto et al. teaches that behenyltrimethylammonium is a well-known hair conditioning agent, and alkyl ether sulfate are anionic surfactant known to be useful in hair composition. See, particularly, column 2, line 13 to column 3, line 36, column 5, lines 28-50, and column 7, lines 13-65. Uchiyama et al. teaches that a conditioning shampoo composition may comprise anionic surfactant, conditioning agent, such as behenyltrimethylammonium and thickener. See, particularly, the claims, and column 22, lines 34-55. Further, The optimization of a result effective parameter, e.g., optimal amounts of each known ingredients in a cosmetic composition, or a proper pH, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

4. Claims 1, 3, 18, 25, 28, 38, 39, and 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al.

Janchipraponvej teaches clear conditioning compositions and methods to impart improved properties to hair. The compositions provide excellent wet comb and dry comb properties to the hair, and the hair demonstrates improved physical and cosmetic properties (see col. 7, lines 21-48). The compositions of Janchipraponvej contain quaternary ammonium compounds (see col. 8, line 8-47). Behenyltrimethylammonium chloride is specifically taught (see col. 10, lines 1-29). Weight percentages of the quaternary ammonium compound are taught (see col. 10, lines 30-45). The reference teaches the use of thickening agents such as polyacrylic acid derivatives, and that the resulting compositions are relatively viscous compositions that are stable to phase separation for an indefinite period of time (see col. 16, lines 9-32). A preferred range of pH from 5.5 to 6.5 is taught (see col. 14, lines 5-18). Additional surfactants are included in the composition (see col. 14, line 19 through col. 15, line 18). The reference lacks modified starch and anionic surfactants.

Sweger teaches cosmetic compositions containing amino-multicarboxylate modified starch. Example 1 illustrates a starch modified with z-chloroethylaminodipropionic acid (CEPA) (see col. 6, line 44 through col. 7, line 10). The starch derivatives provide thickening and emulsion stabilization and exhibit good appearance and feel to the skin (see col. 1, lines 32-37., col. 9, lines 60-63). The reference teaches that polyacrylic acid polymers such as Carbopoll resins are the leading thickeners and emulsion stabilizers in the skin care and hair care markets. The reference further teaches that CEPA-modified starch gives stable viscosity over time and is

superior to the Carbopol® standard (see col. 9, lines 1-6). Sweger et al. further teaches that the CEPA-modified starch may be used together with other ionic or non-ionic surfactants. See, particularly, col. 4, line 39 to col. 5, line 13.

Martino teaches the use of alkyl ether sulfate salts as well known surfactants in cosmetic formulations (see col. 5, lines 11-26). The reference teaches that certain alkyl ether sulfate salts are particularly useful in combination with keratin treating cosmetic compositions containing amphoteric starch derivatives as disclosed in the reference (see abstract and col. 5, lines 16-17). Uchiyama et al. teaches that a conditioning shampoo composition may comprise anionic surfactant, conditioning agent, such as behenyltrimethylammonium and thickener. See, particularly, the claims, and column 22, lines 34-55.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions of Janchipraponvej by the addition of amphoteric starches as taught by Sweger and anionic surfactants as taught by Martino in order to benefit from the improved results of the amphoteric starches with respect to viscosity and thickening as taught by Sweger.

5. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. (US Patent 5,876,705), in further view of Sokol (US 3,912,808); or over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al., in further view of Sokol (US 3,912,808).

The teaching of Sweger et al. Matsumoto et al. , Uchiyama et al. Janchipraponvej, and Martino et al. are discussed above, the references do not teach expressly the particular polymers herein as hair conditioning agents.

However, Sokol et al. teaches the polymers herein as hair conditioning agent and are useful in hair care composition, the conditioning effect produced by incorporating these polymers in a hair treating composition is remarkably durable, persisting in many cases through several successive rinses and even through successive washings with a conventional detergent or shampoo composition. See, particularly, col. 2, line 30 to col. 3, line 53, col. 5, line 19 to col. 6, line 10. Therefore it would have been obvious to incorporate the particular cationic polymer herein, as conditioning agent, in the hair care product as suggested by Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. and Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al. The particular polymer recited in claim 71 is view as obvious variation of those taught by Sokol. Note Sokol teach A and B (R10 and R11 herein) are independently (i.e., either both the same or different) alkyl groups having one to 22 carbon atoms, lower hydroxyalkyl groups having from one to five carbon atoms, and lower alkyl groups containing terminal amido groups such as beta-propionamido; and wherein A and B together with N are piperidinyl or morpholinyl groups.

Response to the Arguments

Applicants' amendments and remarks submitted June 15, 2007 have been fully considered, but are not persuasive with respect to the rejections set forth above.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching, suggestion and motivation are found in the cited references and in the knowledge generally available to one of ordinary skill in the art. Particularly, the particular modified starch herein are known to provide superior properties as cosmetic ingredients, particularly for skin and hair care products, the cationic agents herein are well known conditioning agents commonly used in skin and/or hair products. Therefore, it would have been obvious to use the modified starch herein in skin and/or hair care products with the known cationic agent and enjoy the expected superiority of the modified starch. Applicants' interpretation of "explicit" is incorrect. As it well recognized now that "teaching, suggestion, or motivation" is one of methods for obviousness analysis, but not the solo method. The court also reject the rigid analysis applied to "teaching, suggestion, or motivation" analysis. The obviousness analysis "can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *Id.* at 1742.

The evidence of record shows that the subject matter as claimed is a combination of known components selected for their known properties as cosmetic ingredients. A claim which

unites elements with no change in their respective functions to yield a predictable result is not patentable in the absence of secondary considerations.

For over a half century, the [Supreme] Court has held that a "patent for a combination which only unites old elements with no change in their respective functions ...obviously withdraws what is already known into the field of its monopoly and diminishes the resources available to skillful men." *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152 [87 USPQ 303] (1950). This is a principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.

KSR Int'l v. Teleflex Inc., 82 USPQ2d 1385, 1395 (2007).

No explicit teaching is necessary to have led the skilled worker to the particular components – using the modified starch in cosmetics - recited in claims because the modified starch is known to have superior properties vs other known agents as thickener, prompting the skilled worker to have combined them.

Regarding the establishment of unexpected results, a few notable principles are well settled. It is applicant's burden to explain any proffered data and establish how any results therein should be taken to be statistically and practically unexpected and significant. See MPEP 716.02 (b). The claims must be commensurate in the scope with any evidence of unexpected results. See MPEP 716.02 (d). Further, one must compare the claimed subject matter with the closest prior art in order to be effective to rebut a prima facie case of obviousness. See, MPEP 716.02 (e). In the instant case, the claimed invention is not commensurate in scope with the data presented in the declaration. Particularly, the data shows some benefit of the particular amphoteric starch in combination with one of three particular cationic agents: hexadimethrin chloride, cetytrimethylammonium and DC2-8299, for treating hair, compared with the cationic agent combined with nonionic starch. However, there is no rationale as to how the benefit

residing in those three cationic agents would be extrapolated to all the cationic agents herein claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shengjun Wang
Primary Examiner
Art Unit 1617



**SHENGJUN WANG
PRIMARY EXAMINER**